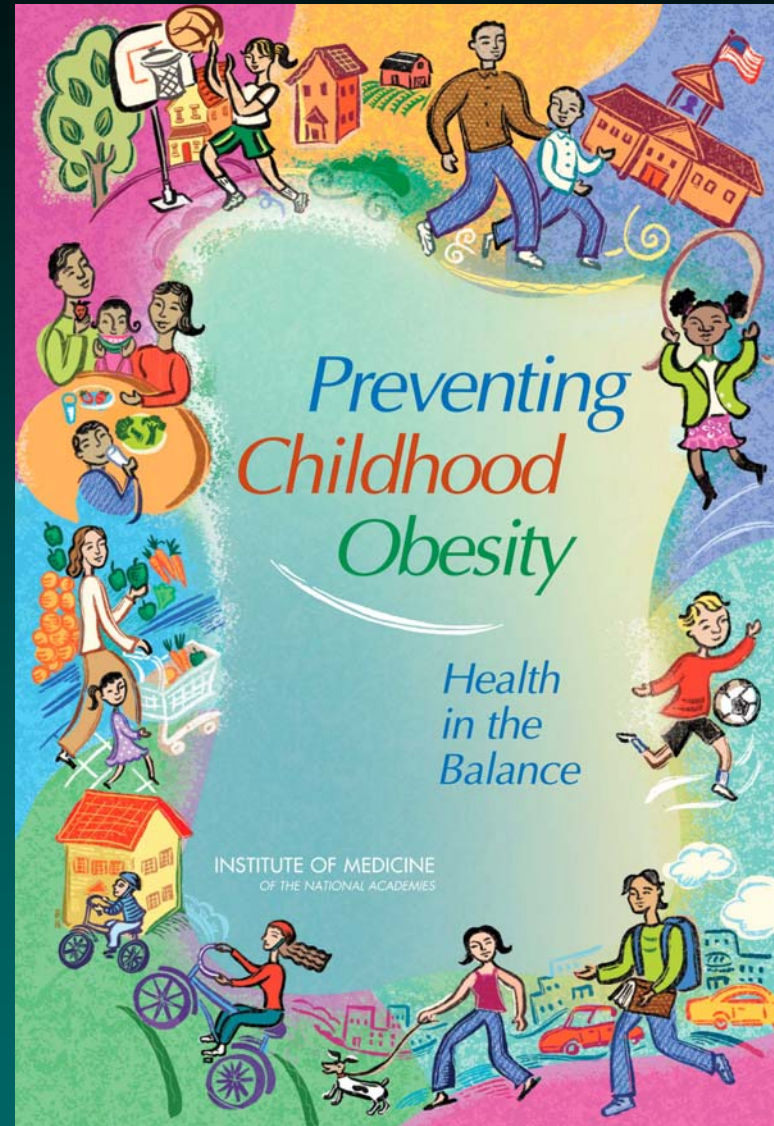


***IOM Report on  
Preventing Childhood  
Obesity in the  
United States:  
A Blueprint for Action***

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Washington, DC**

**NASULGC  
Food and Society Conference**

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# Topics To Be Covered

- Study Background and Committee Process
- Trends and Consequences Related to Childhood Obesity
- Review of the Evidence
- Key Sectors and Stakeholders
- Action Plan and Report Recommendations
- Research Priorities
- Other Relevant IOM Studies

# IOM Study Background

- Congressional request for IOM study (2002)
- Sponsors were DHHS - CDC, NIH, ODPHP and RWJF
- 24-month study duration
- Task was to develop a prevention-focused action plan
- 19-member multidisciplinary expert committee met at intervals to address scope of work and review the relevant scientific evidence to develop findings, conclusions, and recommendations.
- Rigorous blinded peer-review process (21 reviewers) before public release of the final consensus report in September 2004.

# Committee on Prevention of Obesity in Children and Youth

**JEFFREY KOPLAN** (*Chair*), Emory  
University

**DENNIS BIER**, Baylor College of  
Medicine

**LEANN BIRCH**, Pennsylvania State  
University

**ROSS BROWNSON**, St. Louis University

**JOHN CAWLEY**, Cornell University

**GEORGE FLORES**, The California  
Endowment

**SIMONE FRENCH**, University of  
Minnesota

**SUSAN HANDY**, University of California,  
Davis

**ROBERT HORNIK**, University of  
Pennsylvania

**DOUGLAS KAMEROW**, RTI International  
**SHIRIKI KUMANYIKA**, University of  
Pennsylvania

**BARBARA MOORE**, Shape Up America!

**ARIE NETTLES**, University of Michigan

**RUSSELL PATE**, University of South  
Carolina

**JOHN PETERS**, Procter & Gamble Company

**THOMAS ROBINSON**, Stanford University

**CHARLES ROYER**, University of  
Washington

**SHIRLEY WATKINS**, SR Watkins &  
Associates

**ROBERT WHITAKER**, Mathematica Policy  
Research

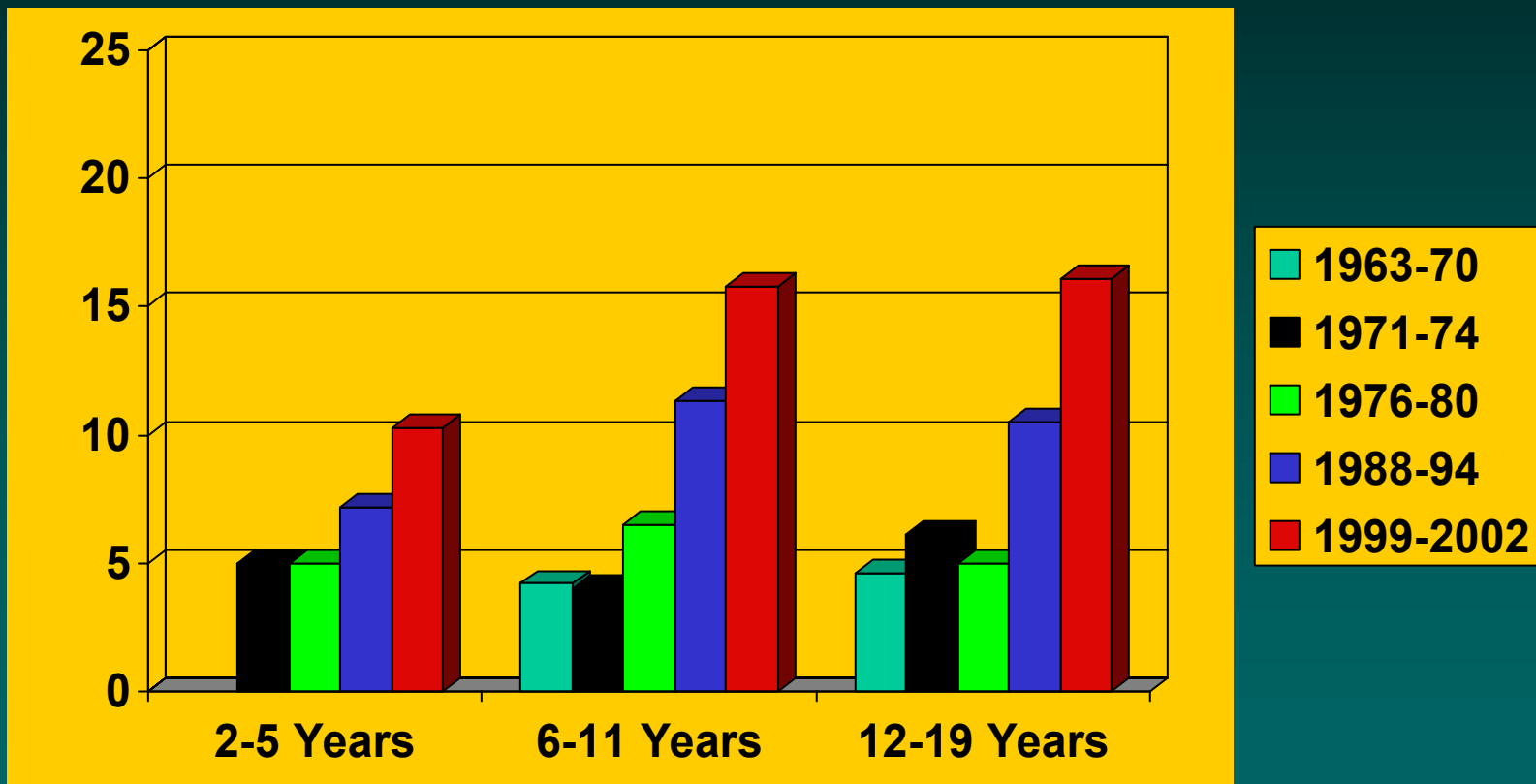
# An Epidemic of Childhood Obesity

- Since the 1970s, obesity prevalence
  - Upward trend for children < 2 years
  - Doubled for preschool children aged 2-5 years
  - Doubled for adolescents aged 12-19 years
  - Tripled for children aged 6-11 years
- > 9 million U.S. children and youth > 6 years obese
- Mirror similar trends
  - U.S. adults & adults and children internationally

# Terminology

- In this report, **obesity** refers to children and youth who have a BMI  $\geq$  95<sup>th</sup> percentile of the age- and gender-specific CDC BMI charts
- CDC BMI charts represent smoothed curves based on cross-sectional serial national health surveys (1963-1994)
- In most children, BMI values  $\geq$  95<sup>th</sup> percentile indicate elevated body fat and reflect the presence or risk of related diseases\*
- There are no BMI-for-age references for children < 2 years
- CDC uses the term “overweight” instead of “obesity” for children

# Childhood Obesity, 1963-2002



# High-Risk Subgroups

- No demographic group has been untouched
- Children and teens in high-risk subgroups may be more sensitive to, or less able to avoid, causal factors
  - Parental obesity doubles risk adult obesity in kids < 10 yrs
  - Children in lower SES ethnic communities
  - Ethnic minorities (AA, H/L, AI) – 24% > 95<sup>th</sup>
  - Regional differences 1998 NLSY - (~11% W vs. 17% S)
- No consensus about mechanisms by which ethnic, SES, regional disparities occur



# Implications for Children and Society

*Physical, social, emotional health & economic consequences*

## Physical Health

Glucose intolerance

Insulin resistance

Type 2 diabetes

Hypertension

Dyslipidemia

Hepatic steatosis

Cholelithiasis

Sleep apnea

Orthopedic problems

## Emotional Health

Low self-esteem

Negative body image

Depression

## Social Health

Stigma

Negative stereotyping

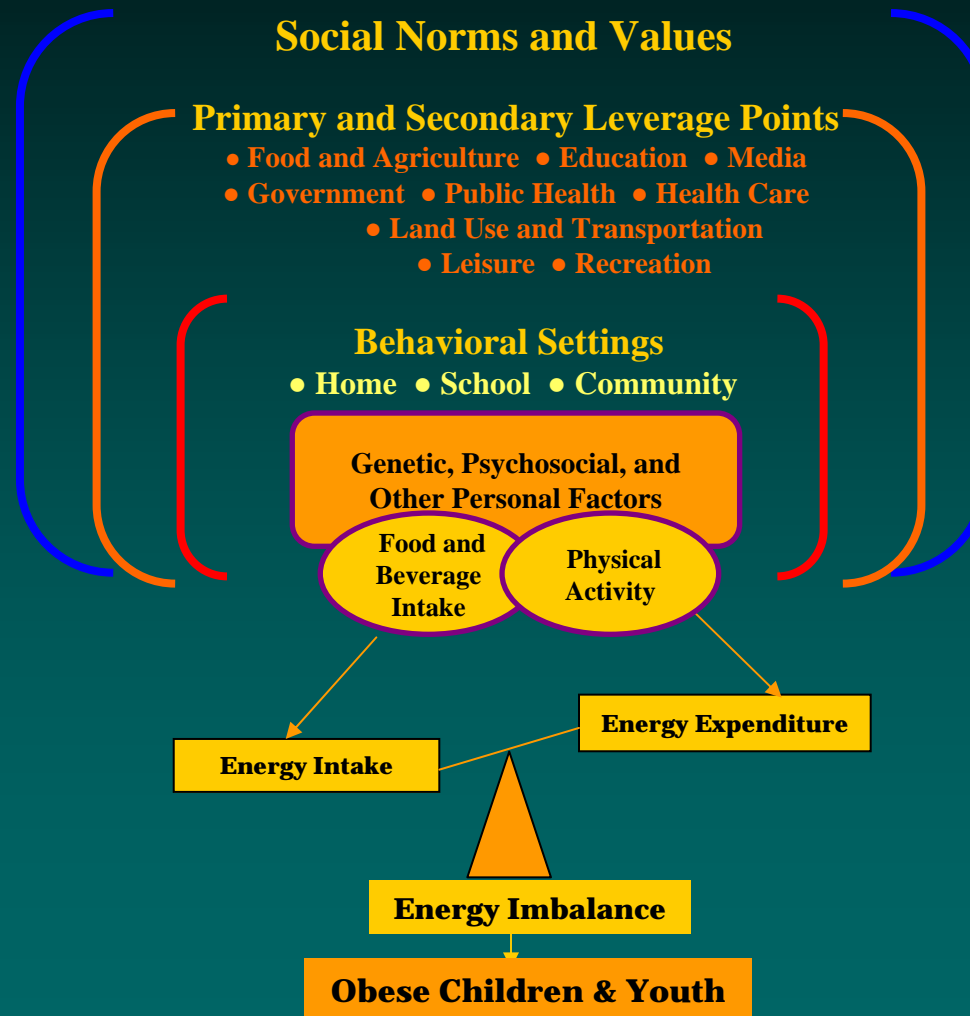
Discrimination

Teasing and bullying

Social marginalization

## Economic Costs

# Framework for Understanding Obesity in Children and Youth



# Review of the Evidence

- The committee strongly endorsed an action plan based on the best *available* evidence instead of waiting for the best *possible* evidence
- Integrated approach to the available evidence
  - Limited obesity prevention literature upon which to base recommendations
  - Parallel evidence from other public health issues
  - Dietary and physical activity literature

# Energy Balance

Energy intake =  
Energy expenditure

For children, *maintain energy balance at a healthy weight* while protecting health, growth and development, and nutritional status



# Obesity Prevention Goals

For the *population* of children and youth, create an environmental-behavioral synergy that:

- Reduces the incidence and prevalence of childhood and adolescent obesity
- Reduces the mean population BMI levels
- Improves the proportion of children meeting Dietary Guidelines for Americans
- Improves the proportion of children meeting physical activity guidelines
- Achieves physical, psychological, and cognitive growth and developmental goals

# Key Conclusions

- Childhood obesity is a serious nationwide health problem with multi-factorial causes requiring a *population-based prevention approach* and a *comprehensive response*.
- The goal is *energy balance* – healthful eating behaviors and regular physical activity to achieve a *healthy weight* while protecting health and normal growth and development.
- Preventing childhood obesity is a *collective responsibility*—multiple sectors and stakeholders must be involved in societal changes at all levels.

# What is Needed?

- Leadership
- Evaluation
- Resources
- Efforts at all levels
- Change in societal norms



**Obesity Prevalence  
Increasing**



**Healthful Eating  
Behaviors and  
Physical Activity  
are the Norm**

# Changing Social Norms

## *Public Health Precedents*

- Tobacco control
- Underage drinking
- Highway safety
- Use of seatbelts and child car seats
- Vaccines
- Fluoridation



# Key Stakeholders to Involve

- Parents
- Families
- Schools
- Communities
- Health Care
- Industry
- Media
- Government

# Action Plan for Obesity Prevention

- National public health priority
- Healthy marketplace & media environments
- Healthy communities
- Healthy school environment
- Healthy home environment

# National Priority

*Government at all levels to provide coordinated leadership*

- *Federal coordination:* President should request that DHHS Secretary convene a high-level task force to ensure coordinated budgets, policies, and program requirements and priorities
- Program and research efforts to prevent childhood obesity in high-risk populations
- Resources for state and local grant programs, support for public health agencies
- Independent assessment of federal nutrition assistance programs and agricultural policies
- Research and surveillance efforts

# Nutrition Assistance Programs

- Federal support is needed for programs that emphasize improved nutrition and physical activity
- Programs should be required to have strong evaluation components and results should be reflected in program refinements
- These programs should explore and evaluate new educational approaches for teaching energy balance to children and their families
- Congress should request independent assessments of these programs

# Agricultural Policies

- An independent assessment should be conducted of U.S. agricultural policies, including agricultural subsidies and commodity programs that may affect the types and quantities of foods available to children through the federal food assistance program

# Healthy Marketplace and Media

*Food & Beverage, Restaurant, Entertainment & Recreational Industries*

- Healthful products and meals, innovative packaging and products that promote physical activity and reduced sedentary behaviors
- Labeling to provide total calorie information for a typical serving; expand evidence-based nutrient and health claims; research to improve labeling
- Develop new advertising and marketing guidelines; FTC authority and resources to monitor compliance
- Multi-media and public relations campaign
  - To build support for policy changes
  - Directed at children, parents, society at large
- Media should incorporate obesity prevention into content

# Healthy Communities

*Promote Healthful Eating and Regular Physical Activity*

- Mobilize Communities
  - Build diverse coalitions of local governments, public health, schools & community agencies
  - Efforts to eliminate health disparities should prioritize obesity prevention
  - Child- and youth-centered organizations focus on healthful eating and physical activity
  - Community evaluation tools should incorporate measures of the availability of/opportunities for healthful eating and physical activity
  - Improve access to supermarkets, farmers' markets and community gardens, particularly in low-income and underserved areas

# Healthy Communities

## *Promote Healthful Eating and Regular Physical Activity*

- Enhance the Built Environment
  - Revise city planning practices to increase availability of/opportunities for physical activity and healthful foods in new developments
  - Prioritize capital improvement projects to increase opportunities for physical activity and healthful foods in existing areas
  - Prioritize street and sidewalk safety of routes for walking and bicycling to school
  - DHHS and DOT should fund community-based research to examine the impact of changes to the built environment on physical activity and dietary behaviors



# Healthy Schools

## *Provide A Consistent Health-Promoting Environment*

- USDA and State and Local Educational Authorities
  - Develop and implement nutritional standards for all competitive foods and beverages sold or served in schools
  - Ensure all school meals meet Dietary Guidelines
  - Pilot programs to expand school meal funding in schools with a large percentage of children at high risk of obesity

# Healthy Schools

## *Provide A Consistent Health-Promoting Environment*

- State and Local Educational Authorities
  - At least 30 minutes of moderate to vigorous physical activity during the school day
  - Expand opportunities for physical activity at school
    - PE classes, intramural & interscholastic sports programs and other physical activity clubs, programs and lessons
    - After-school use of school facilities
    - Use of schools as community centers
    - Walking and biking to school programs

# Healthy Schools

## *Provide A Consistent Health-Promoting Environment*

- State and Local Educational Authorities
  - Enhance health curricula - behavioral focus; nutrition, physical activity, reducing sedentary behaviors, and energy balance
  - Develop, implement and evaluate pilot programs to explore innovative approaches to both staffing and teaching about health, nutrition, physical activity, and reducing sedentary behaviors

# Healthy Schools

## *Provide A Consistent Health-Promoting Environment*

- State and Local Educational Authorities
  - Develop, implement and enforce school policies to make schools advertising-free to the greatest extent possible
  - Involve school health services
  - Annual assessments of each student's weight, height and BMI percentile and make available to parents
  - Perform Periodic assessments of school policies and practices related to nutrition, physical activity and obesity prevention

# Health Care Community

- Professionals who care for children
  - Pediatricians, family physicians, nurses, etc.
- Professional organizations
  - AAP, AAFP, ANA, etc.
- Training programs and certifying entities
  - Medical schools, residencies, CME, MoC, boards
- Health plans, insurers, and accreditors
  - Kaiser, CIGNA, NCQA, etc.

# Health Care Professionals & Societies

## Health Care Professionals

- Routinely track BMI
- Offer relevant evidence-based counseling and guidance
- Serve as role models
- Provide leadership in their communities

## Professional Societies

- Disseminate evidence-based clinical guidance
- Establish programs on obesity prevention
- Coordinate with each other to present a consistent message

# Healthy Homes

*Promote Healthful Eating and Regular Physical Activity*

- Exclusive breastfeeding first 4-6 months
- Provide healthful foods - consider nutrient quality and energy density
- Encourage healthful decisions re: portion size, how often and what to eat
- Encourage and support regular physical activity
- Limit recreational screen time to < 2 hours/day
- Parents should be role models
- Discuss child's weight with health care provider

# Low-Income Families and Communities

- Federal support is needed especially for high-risk groups and to evaluate federal food and nutrition assistance programs
- Committee recommended that communities provide opportunities for healthful eating and physical activity in existing and new community programs, particularly for high-risk populations



# Research Priorities

- Evaluation of interventions – efficacy, effectiveness, cost-effectiveness, sustainability, scaling up
- Behavioral intervention research – factors involved in changing dietary, physical activity, and sedentary behaviors
- Community-based population-level research – high-risk populations, health disparities

# IOM Study on Progress in Preventing Childhood Obesity

## Purpose

- Implementation of report recommendations
- Develop an evaluation approach to assess progress in obesity prevention actions for various sectors

## Process

- Three regional symposia planned to focus on report recommendations for schools, communities and government, and industry

## Product

- Report to be released in 2006

# IOM Study on Food Marketing and the Diets of Children and Youth

## Purpose

- Review the effects of food and beverage marketing on the diets and health of children and youth in the United States, including the characteristics of effective marketing of foods to children and youth to promote healthy food choices
- Provide recommendations for public and private stakeholders to foster healthy food and beverage choices in children and youth

## Product

- Report to be released in November 2005

# *Preventing Childhood Obesity: Health in the Balance*

The full IOM report can  
be ordered at

<http://www.nap.edu>

